

## IN THE CLAIMS

Please add claims 16 through 57.

*A1 Cont.*  
*Cont.*  
~~16~~ (new) A method that controls the transportation of an amount of data over a network, wherein, when said amount of data is viewed as being contiguous, such that a next piece of said amount of data is adjacent to a piece of said amount of data from the perspective of said piece of said amount of data, a window that is viewed as being superimposed upon said amount of data defines a specific portion of said amount data based upon a size of said window and a positioning of said window, said method comprising:

a) allowing non contiguous portions of said amount of data to be in transit over said network such that:

- 1) a first portion of said amount of data that is allowed to be in transit within said network can be viewed as being defined by a first window;
- 2) a second portion of said amount of data that is allowed to be in transit within said network can be viewed as being defined by a second window, wherein said first and second windows can be viewed as being superimposed upon said amount of data such that a third portion of said amount of data that is not in transit within said network exists between said first window and said second window, said second portion having a next piece of said

amount of data from the perspective of a piece of said amount of data that is within said third portion; and

b) wherein:

1) if:

said next piece from the perspective of said piece within said third portion arrives at its destination causing said third portion to expand;

2) then:

a next piece of said amount data from the perspective of said second portion is allowed to be in transit within said network causing said second window to slide.

17. (new) The method of claim 16 wherein all of said amount of data is to be transported from a server to a client over said network.

18. (new) The method of claim 17 wherein at least a piece of said amount data that is within said first portion resides within a reply message that has been sent from said server to said client.

19. (new) The method of claim 17 wherein at least a piece of said amount of data that is within said first portion resides within a first reply message that has been sent from said server to said client and at least a piece of said amount of data that is within said second portion resides within a second reply message that has been sent from said server to said client.

20. (new) The method of claim 19 wherein said second reply message is one reply message of a burst of reply messages.

21. (new) The method of claim 17 further comprising sending a request message from said client to said server for said next piece of said amount data from the perspective of said second portion.

22. (new) The method of claim 21 further comprising starting a timer that measures how long it takes for said next piece of said amount data from the perspective of said second portion to arrive at said destination.

23. (new) The method of claim 16 wherein at least a piece of said amount of data within said first portion is no longer deemed in transit within said network because of the expiration of a timer.

24. (new) The method of claim 22 wherein said declaration is the result of the expiration of a timer.

25. (new) The method of claim 16 wherein said next piece of said amount data from the perspective of said second portion is the same size as said piece of said amount of data that arrived at its destination.

26. (new) A method, comprising:

a) \* sending a message onto a network from a client to a server that requests a

portion of an amount of data from said server wherein the total amount of said amount of data that is:

1) requested by said client from said server through one or more messages and

2) not received by said client

is within a limit that controls how much of said amount of data is in transit on said network, said limit being maintained by said client and,

\* starting a timer at said client that times how long it takes for any piece of said

portion to be received at said client; and

b) sending a second message from said client to said server for another portion of

said amount of data, said sending a second message in response to a reception of at least a piece of said portion, said reception occurring no later than an expiration of said timer.

27. (new) The method of claim 26 wherein said another portion is the same size as said at least a piece of said portion.

28. (new) The method of claim 26 wherein the size of said another portion is the minimum of:

- 1) the size of said at least a piece of said portion
- 2) said limit minus an amount of said data that is characterized as being "in transit" on said network.
- 3) a second limit that sets a limit on the maximum amount of data that may be requested by said client in said second message
- 4) a third limit that sets a limit on the maximum amount of said data that may be sent by said server to said client as a result of said server's reception of said second message.

29. (new) The method of claim 26 wherein said client tracks various portions of said amount of data over the course of a transaction in which said amount of data is eventually transported from said server to said client, said various portions being tracked according to the following set of characteristics:

- 1) those one or more portions that have been received from  
said server before the expiration of its timer.
- 2) those one or more portions for whom a requesting message has  
been  
sent onto said network from said client to said server and  
whose timer has not yet expired.
- 3) those one or more portions that are neither characteristic 1) or  
characteristic 2).

30. (new) A method, comprising:

tracking a plurality of portions of an amount of data over the course of a transaction in which said amount of data is eventually transported from a server to a client, said various portions being tracked by said client consistent with the following set of characteristics:

- 1) those one or more portions that have been received from said server before the expiration of its timer.
- 2) those one or more portions for whom a requesting message has been sent onto said network from said client to said server and whose timer has not yet expired.
- 3) those one or more portions that are neither characteristic 1) or characteristic 2)

wherein

when said amount of data is viewed as being contiguous, such that a next piece of said amount of data is adjacent to a piece of said amount of data from the perspective of said piece of said amount of data, a first portion having characteristic 1) is between a second and third portions having characteristic 2).

31. (new) The method of claim 30 further comprising re-characterizing a specific portion of said amount of data from characteristic 2) to characteristic 1)

as a result of said specific portion being received at said client, said specific portion being received prior to the expiration of its timer.

32. (new) The method of claim 30 further comprising re-characterizing a specific portion of said amount of data from characteristic 2) to characteristic 3) as a result of said specific portion not having been received at said client after the expiration of its timer.

33. (new) The method of claim 32 further comprising sending another message onto said network from said client to said server that requests said specific portion, and, starting another timer for said specific portion, and, re-characterizing said specific portion from characteristic 3) to characteristic 2).

34. (new) The method of claim 32 further comprising re-characterizing said specific portion from characteristic 2) to characteristic 1) as a result of said specific portion being received at said client, said specific portion being received prior to the expiration of its said another timer.

35. (new) The method of claim 32 further comprising ignoring a second reception of said specific portion at said client.

36. (new) The method of claim 30 wherein said 3) characteristic is further resolved into the following characteristics:

3a) those of said portions for whom a requesting message has been

sent onto said network from said client to said server and whose timer has expired, but, who are not yet permitted to have another requesting message sent from said client to said server.

3b) those of said portions for whom a requesting message may be sent onto said network from said client to said server.

37. (new) The method of claim 36 further comprising re-characterizing a specific portion from said characteristic 3a) to said characteristic 3b) after a period of time has elapsed beyond the expiration of a timer for said specific portion.

38. (new) The method of claim 22 further comprising re-characterizing a specific portion from said characteristic 3b) to said characteristic 2) as a result of decision to prepare another requesting message from said client to said server for said specific portion.

39. (new) The method of claim 21 further comprising reducing a limit that limits the combined size of those portions allowed to have characteristic 2) as a result of a specific portion of said amount of data having its timer expire so as to be re-characterized from characteristic 2) to characteristic 3a).



40. (new) The method of claim 24 wherein said reducing is an amount that is the same size as said specific portion.

41. (new) The method of claim 24 further comprising re-characterizing said specific portion from said characteristic 3a) to said characteristic 1) as a result of said specific portion having been received by said client.

*B1 Cont.*  
42. (new) A machine readable medium having stored thereon a sequence of instructions which, when executed by a processing system, cause said processing system to perform a method, said method comprising:

a) \* sending a message onto a network from a client to a server that requests a

*A1 Cont.*  
portion of an amount of data from said server wherein the total amount of said amount of data that is:

1) requested by said client from said server through one or more messages and

2) not received by said client

is within a limit that controls how much of said amount of data is in transit on said network, said limit being maintained by said client and,

\* starting a timer at said client that times how long it takes for any piece of said

portion to be received at said client; and

b) sending a second message from said client to said server for another portion of

said amount of data, said sending a second message in response to a reception of at least a piece of said portion, said reception occurring no later than an expiration of said timer.

43. (new) The machine readable medium of claim 42 wherein said another portion is the same size as said at least a piece of said portion.

44. (new) The machine readable medium of claim 42 wherein the size of said another portion is the minimum of:

- 1) the size of said at least a piece of said portion
- 2) said limit minus an amount of said data that is characterized as being  
"in transit" on said network.
- 3) a second limit that sets a limit on the maximum amount of data that may be requested by said client in said second message
- 4) a third limit that sets a limit on the maximum amount of said data that  
may be sent by said server to said client as a result of said server's reception of said second message.

45. (new) The machine readable medium of claim 42 wherein said client tracks various portions of said amount of data over the course of a transaction in which

said amount of data is eventually transported from said server to said client,  
said various portions being tracked according to the following set of  
characteristics:

- 1) those one or more portions that have been received from  
said server before the expiration of its timer.
- 2) those one or more portions for whom a requesting message has  
been  
sent onto said network from said client to said server and  
whose timer has not yet expired.
- 3) those one or more portions that are neither characteristic 1) or  
characteristic 2).

*A Cont.*  
*B Cont.*  
46. (new) A machine readable medium having stored thereon a sequence of  
instructions which, when executed by a processing system, cause said  
processing system to perform a method, said method comprising:

tracking a plurality of portions of an amount of data over the course of a  
transaction in which said amount of data is eventually transported from a  
server to a client, said various portions being tracked by said client  
consistent with the following set of characteristics:

- 1) those one or more portions that have been received from  
said server before the expiration of its timer.
- 2) those one or more portions for whom a requesting message has  
been

sent onto said network from said client to said server and  
whose timer has not yet expired.

3) those one or more portions that are neither characteristic 1) or  
characteristic 2)

wherein

when said amount of data is viewed as being contiguous, such  
that a next piece of said amount of data is adjacent to a piece of  
said amount of data from the perspective of said piece of said  
amount of data, a first portion having characteristic 1) is between a  
second and third portions having characteristic 2).

47. (new) The machine readable medium of claim 46 wherein said method  
further comprises re-characterizing a specific portion of said amount of data  
from characteristic 2) to characteristic 1) as a result of said specific portion  
being received at said client, said specific portion being received prior to the  
expiration of its timer.

48. (new) The machine readable medium of claim 46 wherein said method  
further comprises re-characterizing a specific portion of said amount of data  
from characteristic 2) to characteristic 3) as a result of said specific portion not  
having been received at said client after the expiration of its timer.

49. (new) The machine readable medium of claim 48 wherein said method further comprises sending another message onto said network from said client to said server that requests said specific portion, and, starting another timer for said specific portion, and, re-characterizing said specific portion from characteristic 3) to characteristic 2).

50. (new) The machine readable medium of claim 49 wherein said method further comprises re-characterizing said specific portion from characteristic 2) to characteristic 1) as a result of said specific portion being received at said client, said specific portion being received prior to the expiration of its said another timer.

51. (new) The machine readable medium of claim 49 wherein said method further comprises ignoring a second reception of said specific portion at said client.

52. (new) The machine readable medium of claim 46 wherein said 3) characteristic is further resolved into the following characteristics:

3a) those of said portions for whom a requesting message has been sent onto said network from said client to said server and whose timer has expired, but, who are not yet permitted to have another requesting message sent from said client to said server.

3b) those of said portions for whom a requesting message may be sent onto said network from said client to said server.

53. (new) The machine readable medium of claim 52 wherein said method further comprises re-characterizing a specific portion from said characteristic 3a) to said characteristic 3b) after a period of time has elapsed beyond the expiration of a timer for said specific portion.

54. (new) The machine readable medium of claim 53 wherein said method further comprises re-characterizing a specific portion from said characteristic 3b) to said characteristic 2) as a result of decision to prepare another requesting message from said client to said server for said specific portion.

55. (new) The machine readable medium of claim 54 wherein said method further comprises reducing a limit that limits the combined size of those portions allowed to have characteristic 2) as a result of a specific portion of said amount of data having its timer expire so as to be re-characterized from characteristic 2) to characteristic 3a).

56. (new) The machine readable medium of claim 55 wherein said reducing is an amount that is the same size as said specific portion.

57. (new) The machine readable medium of claim 55 wherein said method further comprises re-characterizing said specific portion from said characteristic

By A  
C. 1/1

3a) to said characteristic 1) as a result of said specific portion having been  
received by said client.

---